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# Rock Art and Archaeology in Ifran-n-Taska (Eastern Jebel Bani, Morocco): First Results of the Moroccan-Italian Research Project

by

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KEYWORDS. — Rock Art; Paintings; Archaeology; Morocco; $^{14}$C Dating.

SUMMARY. — The paintings of Ifran-n-Taska (south-west of Zagora) are one of the rare testimonies of this kind of non-engraved rock art in Morocco. The site is of high relevance for a comprehensive approach of the archaeology of the pre-Saharan fringes of Morocco. A Moroccan-Italian research programme has been set up to study these paintings in their whole ethno-archaeological context. The first fieldwork was undertaken in 2009 by a multidisciplinary team (four prehistorians, one anthropologist and one geologist). The drawings found in five shelters at the edge of a dry river, are in red, white, black and yellow. The fieldworkers also carried out an extensive survey of the plateau of Tafraout-n-Taska and held interviews with two nomadic families. The research programme aims both at understanding the environmental and cultural context of the paintings and at analysing the components of the painting material and, if possible, at achieving dating analyses.

## Introduction

The research project *Archéologie et art rupestre du Bani Oriental* is included in a bilateral convention between the National Institute of Archaeological

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Sciences and Heritage (INSAP, Morocco) and the Antiquities Department of the Sapienza University of Rome (Italy). The aims of the project are:

— The study of rock art and of archaeological evidences (GPS surveys, test excavations, extensive excavations);
— An ethno-archaeological investigation on the local nomadic families;
— The collection and dating of archaeological and rock art samples.

The rock art site of Ifran-n-Taska is located on the Tafraout-n-Taska plateau (Eastern Jebel Bani), west of the Zagora village.

The first mission (2009) was devoted to the extensive geo-archaeological survey of the plateau and of the rock art sites, and to the sampling of the rock paintings in Ifran-n-Taska.

## Archaeological Survey

### The Sites

In this region, an astonishing series of evidences attest to the continuity of human presence from the prehistoric times to the XXIst century. The settlements, the chipped stone, the funerary structures, the rock art (petroglyphs and paintings), the quarries like the one located in Lhayyara (northern side Jebel l Lemsemmer – southern Bani), where copper and malachite were mined, form a heritage worth being preserved for their importance in the reconstruction of the history of this region (fig. 1)*.

As to the rock art in this area, the Taghrart-n-Lguettara site, including both petroglyphs and tumuli, was already known (Simoneau 1977). This site is located close to the lower part of the track climbing on the Tafraout plateau, which rises above the Feïja.

This kind of association between petroglyphs and tumuli is well known in various Moroccan regions (Dra, Oukaïmeden, Yagour, etc.) and also in the central Saharan massifs (Algerian Atlas and Tassili, Libyan Messak). These funerary monuments constitute an important clue for the reconstruction of the past pastoral societies and for the interpretation of their symbolic sphere.

Another important rock art context, very rich in petroglyphs, was discovered on the Tafraout plateau in 1995 at the same time as the painted shelters of Ifran-n-Taska. The Lemjilej site (fig. 2) is composed of a concentration of

* *Cf.* figures at the end of the text (pp. 123-136).

thirty-three quartzite decorated slabs. The petroglyphs, characterized by different stylistic traits, were executed in different periods (as attested by the patina) and with different engraving techniques. The vast majority of the subjects are represented by geometric motifs, but there are also zoomorphic subjects (antelopes, ostriches, dromedaries, oxen), anthropomorphic subjects (hunters, horsemen), sandals, Libyco-Berber inscriptions. The modern petroglyphs, with a very light patina, include a man riding a donkey, some Arabic inscriptions, a driver on his car and a hunting scene with a rifle. Four out of the zoomorphic subjects are in Tazina style (figs. 3, 4) and could go back to the Middle-Final Neolithic, spanning from 4,000 to 2,000 BC (PICHLER & RODRIGUE 2003). Most of the drawings can be assigned to the so-called Libyco-Berber style *lato sensu* or to recent times.

A number of Islamic cemeteries are often associated with the tumuli (fig. 5). One of the most interesting contexts was found at the foot of the Afrou mountain, facing the shelters of Ifran-n-Taska. Here there are two small cemeteries, one possibly older than the other because of the worse state of preservation. Close to the older cemetery, a stone ring encloses a pit of approximately 40 cm deep. Lahcen Oukhayyi, the householder of the family inhabiting the plateau, explained us that this structure was a tumulus which represented the burial of Sidi Abderrahman, a saint whose burial was raped in 2003. This burial represents, like in other North-African countries, evidence of the integration of the old beliefs and the Islamic religion. It is interesting to notice the continuity of utilization of the funerary spaces for a very long period in history. The reduced size of the majority of the burials in these cemeteries shows that the nomadic families are characterized by a high infant mortality.

## THE SURFACE FINDINGS

To try to find general clues about the past peopling of the plateau and about the cultural context of the paintings in Ifran-n-Taska shelters, a random collection of the surface findings, consisting of potsherds, chipped stones, slag, ostrich eggshell fragments and beads, was carried out. The stone assemblage, consisting of un-retouched flakes in some cases bearing worn traces or notches, blades, bladelets (fig. 6), cores of different typologies and waste products besides grinding stones and querns (fig. 7), includes also one Mousterian point on a pseudo-Levallois flake and one arrowhead of Neolithic typology. The raw material procurement is very easy because on the plateau there is a remarkable abundance and variety of pebbles and nodules in flint, chalcedony, quartz, quartzite and radiolarite. It is difficult to define

the exact chronology of these pieces also because the archaeological investigations in this region have been mainly devoted to rock art and, moreover, the uncontrolled collection of archaeological artefacts has altered the general picture of the chipped stone complexes (especially as concerns the points). Anyway, this area is likely to have been settled since Paleolithic times through the Neolithic as proved by the previous well-documented research demonstrating the existence of open-air sites (ANTOINE 1933, RUHLMANN 1939, GLORY & ALLAIN 1952, CAMPS & RISER 1978, RODRIGUE 1986). The investigated sites are scattered and rather far from Ifran-n-Taska. However, they belong to the hydrographic basin of the Drâa and could reflect the peopling of the Moroccan pre-Sahara during prehistoric times. In this perspective the research on the prehistoric archaeology of the area under study is certainly promising.

## Pastoral Life on the Plateau

Besides the archaeological survey, an ethnographic investigation on the ways of life of the nomadic herders living on the plateau has been accomplished. The investigation aimed at a better understanding of the cultural context and of the landscape of Ifran-n-Taska. There are two householders. One of them, Lahcen Ou Youssef Oukhayyi, is an Aït Atta and belongs to the Aït Isfoul tribe; the other one is a half-Aït Atta half-Oulad Yahya and belongs to the nomadic Arabic groups settled south of Zagora. This melting pot is reflected in the bilingual (Berber and Arabic) toponymy. The linguistic duality is not recorded in the common topographic maps because the topographical data have been collected in Arabic. As to the settlements, they are composed of a dry-stone wall surrounding the tent and the dry-stone pen of the flock. Two kinds of spatial arrangements occur: *(i)* the tent and the pen of the flock nearby (fig. 8a) and *(ii)* the tent far away from the pen of the flock. The water supply is provided by a series of wells; one of them is Hassi Nsara, close to the painted shelters (fig. 8b). A *guelta* is also present on the plateau. Our main informer, Lahcen Ou Youssef Oukhayyi, told us that up to the eighties of the last century there were fifty to sixty tents on the Tafraout plateau, representing the tribes of Aït Isfoul, Aït Alouane, Aït Khebbach, Imessoufa (Aït Atta confederation), Aït Oussa of the Sahara and also Aït Merghad coming from the Errachidia district. During our research period we were invited to attend a baptism ceremony of Lahcen's grandchild, which represents an occasion to aggregate other nomadic families coming from other places. The women, including the mother with the new born, were

hosted in a tent far from the tent of the men. The food consisted of bread and stew of goat prepared in the tent of the women. The drinks were fresh milk and tea offered by our guest Lahcen in the tent of the men.

The data collected permit to know the story of the region and to understand the social context of the cultural elements so far recorded: above all, the nomads' encampments, the water reservoirs, the flora and the endemic fauna. The data concern also rock art. Lahcen Oukhayyi remembers that the barbary sheep, depicted in a lateral frieze of the Ifran-n-Taska V shelter, was hunted up to the end of the seventies in this area.

## Study of the Painted Shelters

The five adjacent shelters (fig. 9), located close to a well dug in the wadi Taska bed, are north-east oriented. They open along a cliff (quartzite of the Lower Ordovician -1th Bani). The Bani jebel forms the southern edge of the Anti-Atlas Hercynian chain.

The geological survey has recorded the presence of some ochre deposits in the area. On the two sides of one of the tributaries of the El-Guettara wadi crops out the lower Ordovician oolithic iron layer, likely exploited to prepare the colours red, yellow and orange utilized for the paintings. A series of stone enclosures in the shelters attest the use of these places as seasonal pens for the sheep and goat flocks of nomadic herders.

### Description

A database including general information on the Ifran-n-Taska shelters, the details of the walls and of the painted subjects (style, technique, spatial organization, state of preservation) has been elaborated by our team to register the features of the sites.

*Shelter I* (w: 11.40 m – h: 3.40 m – d: 4.20 m): its position is rather elevated above the wadi bottom. A stone enclosure is visible inside. Likely, the archaeological deposit is preserved inside the shelter. A series of chipped stones and ostrich eggshell beads have been collected along the talus (see previous paragraph). The faded paintings, in red, are concentrated on the left part of the rear wall.

*Shelter II* (w: 8.90 m – h: 2.90 m – d: 2 m): here also a stone enclosure is visible inside. The paintings are very deteriorated, mainly because of the rainwater flowing down the walls. The paintings, in red and yellow, still

visible, are concentrated on the right wall between 1 and 1.30 m above the floor. The subjects cluster in four assemblages and represent fingerprints, linear strokes, some indefinite spots and a very faded anthropomorph.

*Shelter III* (w: 9.50 m – h: 4 m – d: 3.20 m): here the polychrome paintings are less degraded also because they are concentrated on the higher portion of the rear wall. The paintings occupy the whole surface; their density increases in the middle of the wall. The following subjects are still readable: an aardvark in dark red (fig. 10), a stylized anthropomorph associated with some Libyco-Berber letters in red (SKOUNTI *et al.* 2004), two tame oxen superimposed, an antelope, a giraffe, several concentrations of fingerprints, several geometric silhouettes or indefinite spots and so on (fig. 11).

*Shelter IV*: this is the largest one, composed of a shelter on the right (w: 23.60 m – h: 3 m – d: 4 m) and a niche (*IV bis*) on the left (w: 10.50 m – h: 1.65 m – d: 2 m). The shelter contains a well-preserved large enclosure, some fireplaces and traces of soot on the walls (fig. 12). It is suitable as a temporary shelter for the herders and their flocks. The concrete well, recently built close to the shelter, makes this site very propitious to herding activities. The paintings of the niche are very interesting because, besides some indefinite spots, there are at least three horizontal rows of miniature anthropomorphs in dark red (max. h: 10 cm), maybe representing dancing people (fig. 13). Other groups of fingerprints and indefinite spots and a quadruped are added to the figurative repertory of the niche. In the main shelter (*IV*) there are several subjects in red, white, black and yellow representing oxen, giraffes (fig. 14), anthropomorphic subjects (warriors, etc.), fingerprints and geometric figures.

*Shelter V*: this is composed of three boulders which form a kind of cavity with three open sides (north-eastern side: w: 8 m – h: 2.20 m – d: 9 m; south-western side: w: 7.60 m – h: 1.90 m – d: 9 m; eastern side: w: 6 m – h: 1.40 m – d: 1.55 m). Its plan is very irregular; most of the preserved paintings are arranged inside a kind of narrow corridor with the roof very close to the ground, so that it is very difficult to observe the painted panels and to take pictures (fig. 15a). Other groups of paintings are scattered on the outer sheltered walls of the eastern and southern boulders. The subjects represented are: armed horsemen, various faunal species (oxen, antelopes, barbary sheep, giraffes and other quadrupeds) and several anthropomorphic figures in different attitudes. The latter are involved in hunting scenes or battles with spears and shields (fig. 15b, c). A Libyco-Berber inscription, painted in red, has already been published (SKOUNTI *et al.* 2003, SKOUNTI & NAMI 2000). The paintings of this site are fairly well preserved as it is not very easy to enter.

In front of the painted shelters, on the opposite side of the wadi Taska, two shelters likely still keep the archaeological deposit more or less intact. Together with shelter I, they could give the opportunity to study the prehistory of the plateau.

### The Vanished Paintings in Shelter IV

The paintings of the five Ifran-n-Taska shelters (figs. 1, 8) and the petroglyphs of Lemjilej were discovered in 1995 by A. Bravin and M. Conenna. Later, a team of the *Centre national du Patrimoine rupestre* made a survey of the plateau, appreciating the importance and scientific relevance of the paintings (Salih 1995). The next year, a paper on the paintings was presented at the Valcamonica Symposium (Bravin 1996). Another site with paintings in this region (surroundings of the village of Zaouïa – Sidi Abd en-Nebi – southern side of the Jebel Bani) was signalled in the publication by Simoneau (1977).

In 1995, on the occasion of the discovery of the paintings, a series of slides were realized. The slides contain the record of the most important paintings of the five Ifran-n-Taska shelters: zoomorphic subjects, miniature subjects, superimposed subjects.

The comparison between the 1995 slides and the 2009 photos shows the bad state of preservation of the paintings, especially in shelter IV. Here, a calcite layer hides the drawing of a red ox (fig 16a, b), while three red-and-white antelopes are so faded that they are no longer readable (fig. 17a, b). The walls of shelter IV have been damaged both by water percolation and human activities performed inside (fig. 12). Several paintings suffered from weathering. The restoration of the paintings hidden by the calcite layer is one of the targets of our mission. Our team has debated the possibility and the methods to restore the paintings covered by calcite layers and soot, without damaging the painted panels.

## Laboratory Analyses

The laboratory analyses aimed first at reconstructing the composition of pigments and secondly at dating the paintings.

### The Composition of Pigments (tab. 1)

The analyses of the five samples by the technique of X-Ray fluorescence (Seccaroni & Moioli 2002) reveal the presence of iron, calcium and

manganese. These elements are associated with some minerals occurring in large amounts in the region.

**Table 1**
Samples (Sn) collected for the analysis of the composition of pigments in Ifran-n-Taska: shelter II (Sn 02 and Sn 03), shelter III (Sn 05), shelter IV bis (Sn 06 and Sn 08)

| Sn | Description | Ca | Mn | Fe |
|---|---|---|---|---|
| 01 | Red 06 | 29 | | 266 |
| 02 | Red 06 | 35 | | 211 |
| 03 | Black 05 | 23 | | 36 |
| 04 | Black 05 | 29 | 1.7 | 39 |
| 05 | Yellow 02 (1) | 38 | | 126 |
| 06 | Yellow 02 (2) | 44 | | 36 |
| 07 | Yellow and Red 03 | 42 | | 352 |
| 08 | Yellow and Red 03 | 44 | | 260 |
| 09 | White 08 | 16 | 3.5 | 58 |
| 10 | White 08 | 11 | 7.2 | 52 |

(1) powder
(2) crust

A larger amount of iron was registered in samples 06 and 03 and in sample 02 (powder), while in the more compact fraction of sample 02 there was a larger amount of calcium. In samples 05 and 08 there was a scarce quantity of manganese likely associated with iron ores, which form the rock substratum of the pigment.

## Direct Dating

As we know, the research on the direct dating of rock art is so recent that we can consider it as still experimental (Hyman *et al.* 1990). The main problem is represented by the contamination of the organic matter in the pigments, caused both by natural and/or anthropogenic factors; moreover, the samples usually also include fragments of the rock substratum. The rock substratum itself undergoes chemical alterations caused by water, which produce the formation of other minerals containing carbon. The rock surface is also subject to biological alterations caused by necrotic microorganisms or other materials rich in carbon (Brunet *et al.* 1988; Bednarik 1996a, b *et al.* 2006; Hachid *et al.* 2010).

### *The Sampling Method*

The method to extract the organic matter in the pigments of the Ifran-n-Taska paintings has already been used to date the paintings of the Tadrart Akakus (Libyan Fezzan, see also ZERBONI 2012). The results are sometimes controversial because the dates do not correspond to the results of the studies on the style, the content and the technique of rock art (PONTI & SINIBALDI 2005, ZAMPETTI 2008, HACHID *et al.* 2010).

### *The Samples*

The pigment samples have been collected in three out of the five shelters (I, III, IV bis). The detection of the paintings suitable for the sampling was rather difficult because of the small size of the paintings.

#### Shelter I

The walls of this shelter are very deteriorated and the colour traces are almost illegible; nevertheless, as there are traces of the archaeological deposit at the foot of the walls and a test excavation is planned in the near future, we decided to try to date a spot of red colour (fig. 18a, b).

#### Shelter III

Here the paintings, in red, dark red, black, white and yellow, are visible enough. The subjects are drawn with the technique of the outline or with the outline and filling. The pigment sample has been taken in the middle of the painted wall, where some small zoomorphic subjects in red, executed with the technique of the outline and filling, are still present (fig. 19a, b).

#### Shelter IV

The sample has been collected in niche IV bis, in the eastern part of the shelter, to prevent contamination with the soot present in shelter IV (fig. 20a) The painted scene represents a group of anthropomorphic subjects, in profile, walking in a single line. The sample of red colour has been taken on the back of one of the subjects (fig. 20b).

*Dating*

The protocol applied has been elaborated by the laboratories of the National Research Council (CNR) and of the Chemistry Department of the Sapienza University of Rome (Mori *et al.* 2006). The samples have been pretreated with a number of washes to remove the impurities. The powder obtained was filtered and then heated at 80 °C. A sample of the treated powder has been used for the HPLC (High Performance Liquid Chromatography) analysis to identify the organic matter (this analysis is on its way). The $^{14}C$ dates have been obtained by the AMS (Accelerator Mass Spectrometry) in the laboratories of the Centre for Isotopic Research on Cultural and Environmental Heritage (CIRCE) of Naples University. The results are: shelter I (TZK I): age $^{14}C$ 3794 +/- 37 BP; shelter III (TZK III): age $^{14}C$ 4100 +/- 59 BP; shelter IV (TZK IV): age $^{14}C$ 7062 +/- 37 BP.

*The Results of Dating*

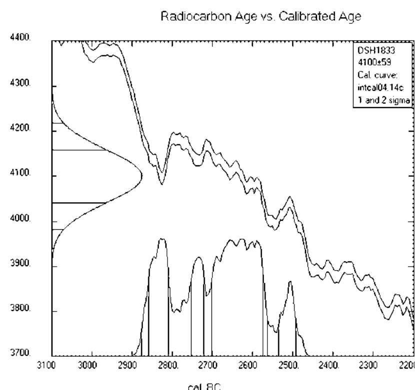
The finds reported have been treated according to the protocols used in the CIRCE laboratory and the ultrasensitive accelerator measurement of 14C/12C isotopic ratios has been performed. The conventional radiocarbon ages obtained are reported, together with the calibrations applied using the code CALIB5. For each sample the calibrated age intervals at the confidence level of 68 (1σ) and 95 % (2σ) are given. Several calibrated age intervals, with different relative probabilities, may correspond to each radiocarbon age, due to the presence of relative maxima in the calibration curve.

Sample: DSH1832 (user code: TZK I) –
Shelter I

Radiocarbon Age 3794±37 a bp
δ13C: -10±2 ‰
One Sigma Ranges: [start:end] relative area
[2287 BC:2196 BC] 0.83
[2169 BC:2147 BC] 0.17
Two Sigma Ranges: [start:end] relative area
[2401 BC:2382 BC] 0.02
[2347 BC:2131 BC] 0.96
[2085 BC:2057 BC] 0.02

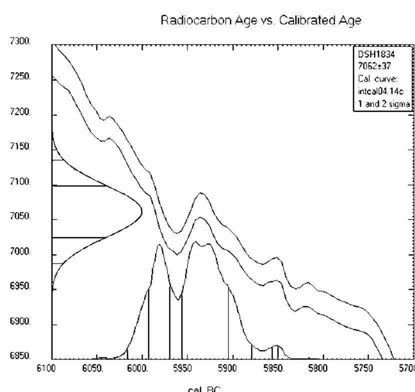
Sample: DSH1833 (user code: TZK III) – Shelter III

Radiocarbon Age 4100±59 a bp
δ13C: -14±2 ‰
One Sigma Ranges: [start:end] relative area
[2858 BC:2810 BC] 0.24
[2751 BC:2722 BC] 0.13
[2701 BC:2574 BC] 0.63
Two Sigma Ranges: [start:end] relative area
[2875 BC:2562 BC] 0.92
[2535 BC:2492 BC] 0.08




Sample: DSH1834 (user code: S1 TZK IV) – Shelter IV

Radiocarbon Age 7062±37 a bp
δ13C: -7±3 ‰
One Sigma Ranges: [start:end] relative area
[5993 BC:5968 BC] 0.31
[5955 BC:5905 BC] 0.69
Two Sigma Ranges: [start:end] relative area
[6016 BC:5878 BC] 0.99
[5855 BC:5850 BC] 0.01




## Preliminary Observations on the Chronology of the Ifran-n-Taska Paintings

The archaeological sequence is still lacking in this area, so the style of the paintings represents a marker important enough to be compared with the dates so far obtained. Besides the subjects in Libyco-Berber style (warriors with shields, horsemen and inscriptions), which go back to the last millennia of prehistory, there are paintings in outline or in full colour. The latter underlie the subjects in Libyco-Berber style (shelters III and IV). In the IV bis niche, the paintings in dark red (see the row of small anthropomorphic figures, fig. 13) underlie other, indecipherable subjects. The most recent painting layer is represented by the series of fingerprints or dots which are not attributable to a specific style. In a recent paper on the painted shelters of the Zemmur region (Soler Subils *et al.* 2006) a designation and a relative chronology were proposed for the different styles which characterize the

painted panels. The row of small figures in the IV bis niche and the small animals (aardvark, quadrupeds, etc.) in shelter III of Ifran-n-Taska seem to be fairly similar to the "Dark Figures' Style", while the subjects in outline are analogous to the "Shaped Style Figures" or "Stroked Style" of the Zemmur. The period suggested is between 3,200 and 2,400 BP (SOLER SUBILS *et al.* 2006, fig. 35). The Tazina school petroglyphs, also present in the Zemmur region, would be earlier so that they could represent till now one of the most typical expressions of the advanced-final Neolithic.

In general, the ages obtained for the paintings of Ifran-n-Taska, even if they are only a preliminary test, seem to be consistent with the sketch by SOLER SUBILS *et al.* (2006), except for the age of the sample from the IV bis niche, which is much older. We clearly need more numerous data coming also from other kinds of investigations to begin to elaborate an explanation and a model of sequence for this area.

## Conclusions

The data on the prehistoric peopling of the eastern Jebel Bani plateau go back to the Holocene period (middle-final Neolithic and Protohistory), if not to the Pleistocene as the artefacts of more archaic typology seem to suggest. These data are very important and meaningful because they attest to the intensive exploitation of mountains during the first millennia of the Holocene and in historical times. Mountains constitute an integrated ecological system, which made the survival of the human groups and of the fauna after the onset of the so-called post-Neolithic dry period possible. The raw materials like quartz, quartzite, malachite, less metals (copper and "oolithic iron"), the water, the wild fauna, the pastures and plants were highly valued resources. Now this heritage, composed of prehistoric and historical settlements and a very fragile ecosystem, is seriously menaced because the circulation of knowledge on the past of this area is inadequate. One of the overriding aims of the mission is to encourage contact between our mission and the local exponents of the economic and cultural life to make them aware of the problems of the cultural heritage. The preservation of this site is a critical point because of the rarity of rock paintings in Morocco, the present condition of deterioration of the site and the perspective of development it contains for this region.

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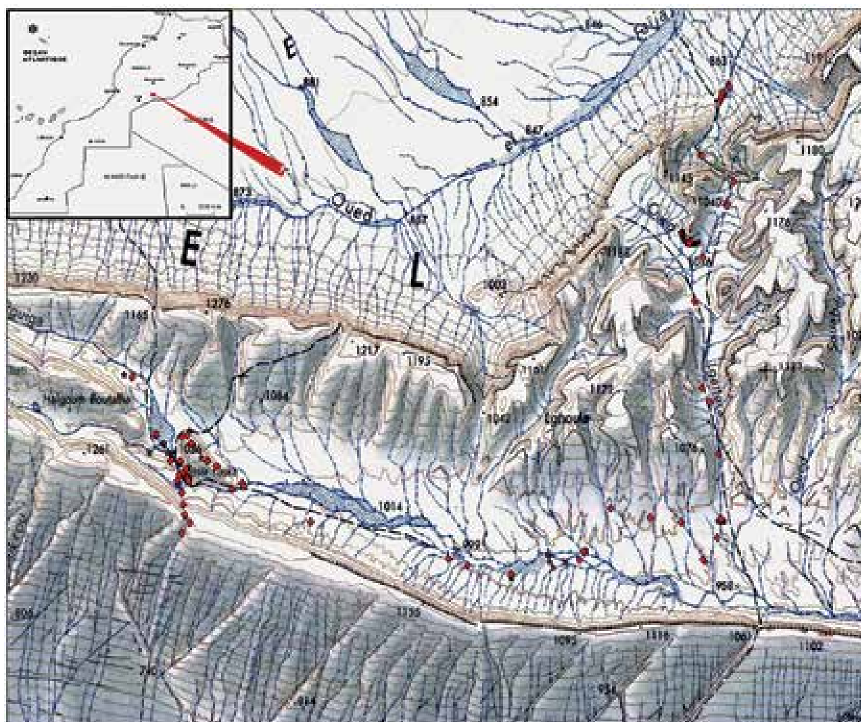



Fig. 1. — Map of the 2009 surveyed sites in Tafraout-n-Taska
(elaborated by K. Tajeddine & M. Nami).



Fig. 2. — The Lemjilej site.



Fig. 3. — Lemjilej: an antelope in Tazina style
(photo: A. Bravin).




Fig. 4. — Lemjilej: a quadruped in Tazina style and geometric figures
(photo: A. Bravin).



Fig. 5. — Jebel Afrou: a protohistoric tumulus (photo: A. Bravin).




Fig. 6. — Surface findings: selected chipped stones (photo: A. Bravin).



Fig. 7. — Surface findings: grinding stone (photo: A. Bravin).



Fig. 8a. — The nomads' settlement (photo: A. Bravin).



Fig. 8b. — The well of Hassi Nsara (photo: A. Bravin).




Fig. 9. — The painted shelters of Ifran-n-Taska (photo: D. Zampetti).




Fig. 10. — Shelter III: the dark red aardvark and the red fingerprints (photo: A. Bravin).



Fig. 11. — Shelter III: quadruped in red outline, Libyco-Berber inscription and fingerprints in full red (photo: A. Bravin).



Fig. 12. — Shelter IV: the walls (photo: A. Bravin).



Fig. 13. — Shelter IV bis: the miniaturized subjects in dark red (photo: A. Bravin).



Fig. 14. — Shelter IV: the white giraffes and strokes of dots superimposed (photo: A. Bravin).



Fig. 15a. — Shelter V: the entrance (photo: A. Bravin).



Fig. 15c. — Shelter V: series of riders in red (photo: A. Bravin).



Fig. 15b. — Shelter V: red warrior with spear and shield (photo: A. Bravin).

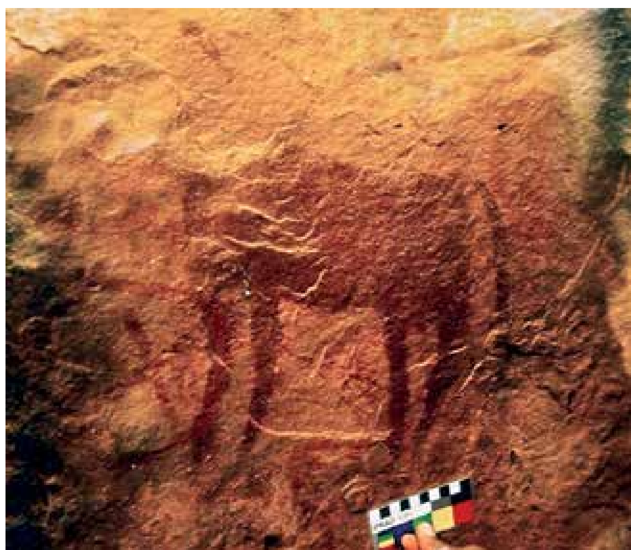


Fig. 16a. — Shelter IV: the red ox in 1995 (photo: A. Bravin).




Fig. 16b. — Shelter IV: the red ox in 2009 (photo: A. Bravin).



Fig. 17a. — Shelter IV: the white and red antelopes in 1995
(photo: A. Bravin).



Fig. 17b. — Shelter IV: the red and white antelopes in 2009
(photo: A. Bravin).



Fig. 18a. — Shelter I (photo: A. Bravin).



Fig. 18b. — Shelter I: the sample of red painting (photo: A. Bravin).



Fig. 19a. — Shelter III (photo: A. Bravin).




Fig. 19b. — Shelter III: the sample of red painting (photo: A. Bravin).



Fig. 20a. — Shelter IV bis: the painted wall (photo: A. Bravin).




Fig. 20b. — Shelter IV bis: the sample of red painting (photo: A. Bravin).